

## Math of elections says voters win with 'winner take all'

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If we want individuals and small groups to have the democratic power to elect the president fairly, we must score presidential elections by winner-take-all states--not in a single giant national district too large for small numbers to turn, said Alan Natapoff, a research scientist at MIT who has studied the mathematics of voting power and has testified before Congress concerning the Electoral College.

In an op-ed, "Stop plan to diminish Marylanders' voting power," that appeared April 5 in the Baltimore Sun, Natapoff urged Maryland Gov. Martin O'Malley not to sign a bill that, if passed by enough states, would bypass the Electoral College and elect the president by raw popular vote. Natapoff contends that the proposed legislation is unconstitutional and that the change would destroy the individual voter's national voting power.

"Small numbers of votes will never turn a national raw-vote election in our lifetime, yet a mere 537 votes in Florida turned the election of 2000," Natapoff wrote in the op-ed. "When close states vote on a winner-take-all basis, their individual voters have large national leverage. Without that leverage, we would all be equally impotent--an irony that would give equality a bad name."

Natapoff would count popular votes cast for any candidate vote-for-vote for the state's winner: If Florida casts 6 million votes for all the candidates, its winner should receive precisely 6 million electoral votes plus the popular-vote equivalent of two senatorial electoral votes--a



quarter of the popular vote in the average state, or about half a million votes now.

"This system would empower voters in poorly contested states, who could withhold their vote from the state's winner by casting a blank ballot," Natapoff wrote. "The dominant candidate would need (acceptance from his opposition) or risk losing 40 percent of the state's electoral votes." It would give 80 million impotent voters in those states an immediate impact on presidential elections. It is the only basic change we need or dare make, he says.

Small states cancel each other in a close election. The greater coherence of large states under winner-take-all, Natapoff claims, gives them much greater national power per vote--in proportion to the square root of their size--than the same number of electoral votes in small states. That, he believes, is why senatorial electoral votes have worked for two centuries and are still needed.

In 2000, he says, California cast half as many popular votes, but had the same net electoral vote impact, as the 29 smallest states combined-even counting their 58 senatorial electoral votes. Without senatorial electoral votes, Natapoff says, small states will not have their fair share of voting power per vote. What is worse, he believes, eliminating senatorial votes without a Constitutional amendment breaks the promise of the Constitution (Article V) that no state will be deprived of them without its consent.

Source: MIT, by Deborah Halber

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